Technical Data

NEMA Manual Starting Switch Specifications
Bulletin Numbers 600, 609, 609U

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Additional Resources

These documents contain additional information concerning related products from Rockwell Automation.

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<tr>
<td>Industrial Automation Wiring and Grounding Guidelines, publication <a href="http://www.ab.com">1770-4.1</a></td>
<td>Provides general guidelines for installing a Rockwell Automation industrial system.</td>
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<td>Product Certifications website, <a href="http://www.ab.com">http://www.ab.com</a></td>
<td>Provides declarations of conformity, certificates, and other certification details.</td>
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You can view or download publications at [http://www.rockwellautomation.com/literature/](http://www.rockwellautomation.com/literature/). To order paper copies of technical documentation, contact your local Allen-Bradley distributor or Rockwell Automation sales representative.
## Manual Motor Starters

<table>
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<th>Bulletin</th>
<th>600</th>
<th>609</th>
<th>609U</th>
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<tr>
<td><strong>Features</strong></td>
<td>Single-phase switch</td>
<td>Single- and three-phase switches</td>
<td>Single- and three-phase switches</td>
</tr>
<tr>
<td></td>
<td>Used on compressors, fans, pumps, and table saws</td>
<td>Contact position indicator</td>
<td>Contact position indicator</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Locking feature</td>
<td>Locking feature</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reversing and 2-speed</td>
<td>Undervoltage protection</td>
</tr>
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| Type of Operator | Single Pole: 115...230V AC (1 Hp) | 115...230V AC, 60 Hz (1...5 Hp) | 115...230V AC, 60 Hz (1...5 Hp) |
| 1-Phase Motor Voltage | | | |
| Push Button/ Toggle Lever/ Key | Two Pole: 115...230V AC (1 Hp) | | |
| | | | |
| Type of Operator | — | 115...230V AC, 60 Hz (3...10 Hp) | 115...230V AC, 60 Hz (3...10 Hp) |
| 3-Phase Motor Voltage | | | |
| Push Button / Toggle Lever | | | |
| | | | |
| **Enclosures NEMA Type** | 1, 4, 7 & 9 | 1, 3R, 4/4X, 7 & 9, and 12 | 1, 3R, 4/4X, 7 & 9, and 12 |

## Group Fusing

The Bulletin 609 sizes 0 and 1 in Type 1, 4X, and 12 enclosures are UL Listed for group fusing with Class J fuses only. See table below for maximum fuse ratings.

The Bulletin 609U and 609TU Sizes 0 and 1 in Type 1, 4/4X, and 3R/12 enclosures are UL Listed for group fusing with Class J fuses only. See table below for maximum fuse ratings.

<table>
<thead>
<tr>
<th>Full Load Current of Smallest Motor Amperes [A]</th>
<th>120...240V</th>
<th>480...600V</th>
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<tbody>
<tr>
<td>0.45...2.99</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>3.00...6.49</td>
<td>60</td>
<td>30</td>
</tr>
<tr>
<td>6.50...18.0</td>
<td>100</td>
<td>—</td>
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</table>

## 609U and 609TU Typical Wiring Diagram

(See Applicable Codes and Laws)

*Remove Jumper “A” to connect remote stop operator wires to vacated terminals. Note: Jumper not available on devices in Type 7 and 9 Enclosure.
Approximate Dimensions 600 Single-Phase Manual Starting Switch

Dimensions are shown in inches (millimeters). Dimensions are not intended to be used for manufacturing purposes.

Open Type without Enclosure

Type 1 General Purpose Enclosure Surface Mounting

Type 1 General Purpose Enclosure Flush Mounting

Type 4 Watertight Enclosure; Type 7 and 9 Hazardous Locations Enclosure

Type 4 Watertight Enclosure, Type 7 & 9

Type 7 & 9 Hazardous Locations Enclosure

* Lever Type Dimension is 2-17/32 in. (64.5 mm).

∗ This dimension may vary up to ±1/8 in. (3.2 mm). Mounting holes should be located at time of installation using device as a template.
Dimensions are shown in inches (millimeters). Dimensions are not intended to be used for manufacturing purposes.

**Bulletin 609 – 609U**

**NEMA Type 1**

- **Surface Mounting**
  - 1/2 (13)
  - 1-1/4 (32)
  - 2-3/8 (57)
  - 7/32 (5.6) Dia. Mfg. Holes

- **Flush Mounting for Plaster Wall**
  - 5-3/8 (137)
  - 2 Holes, 7/32 (5.6) Dia.

- **Flush Mounting for Machine Cavity**
  - 4 Holes #10-24 Top for Machine Cavity Mounting
  - 7/32 (5.6) Dia. Dia. Mounting for Machine Cavity Mounting

- **Flush Mounting Cavity and Drilling Layout**
  - 1/4 (6.4)
  - 8-7/8 (225)

- **Open Type — Without Enclosure**

- **NEMA Type 4/4X**

* Undervoltage solenoid applies only to Bulletins 609U and 609TU.
Approximate Dimensions 609, 609U Single-and Three-Phase NEMA Manual Starting Switch

Dimensions are shown in inches (millimeters). Dimensions are not intended to be used for manufacturing purposes.

**Bulletin 609 – 609U, Continued**

**NEMA Type 3R, 7 & 9**

**NEMA Type 7 & 9**

**NEMA Type 12**

**Bulletin 609RS, 609TS**

Open Type Without Enclosure

**NEMA Type 1**

1/2…3/4 (12.7…19.1) Conduit Knockouts (Both Sides)
Important User Information

Read this document and the documents listed in the additional resources section about installation, configuration, and operation of this equipment before you install, configure, operate, or maintain this product. Users are required to familiarize themselves with installation and wiring instructions in addition to requirements of all applicable codes, laws, and standards.

Activities including installation, adjustments, putting into service, use, assembly, disassembly, and maintenance are required to be carried out by suitably trained personnel in accordance with applicable code of practice.

If this equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

In no event will Rockwell Automation, Inc. be responsible or liable for indirect or consequential damages resulting from the use or application of this equipment.

The examples and diagrams in this manual are included solely for illustrative purposes. Because of the many variables and requirements associated with any particular installation, Rockwell Automation, Inc. cannot assume responsibility or liability for actual use based on the examples and diagrams.

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